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FARMERS
IN EVERY STATE AND TERRITORY.

THE AMERICAN FARMER.

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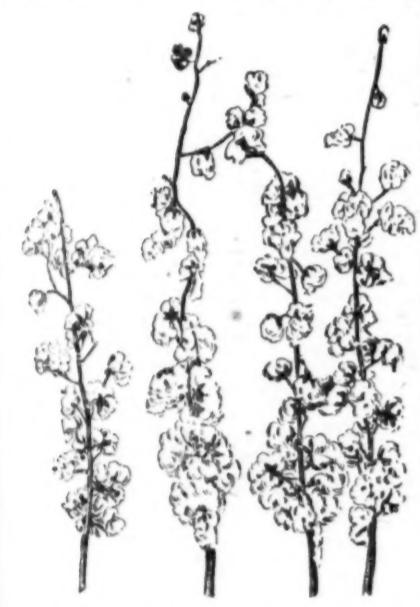
78th Year. New Series.—No. 89.

NEW VARIETY OF COTTON.

Something as to a Plant Grown on a Farm in Georgia

There never has been a year since cotton has become a leading product of the United States that there have not been startling announcements of newly-discovered varieties of wonderful productiveness, fineness, strength, etc. Cotton-men are pretty skeptical, therefore, and will not usually take the least trouble to investigate the truth of the reports.

Some weeks ago the papers published sensational stories of the discovery of a new kind of cotton on a farm near Atlanta, Ga., of such wonderful productiveness that a club of neighboring



PHOTOGRAPH SHOWING OPEN BOLLS.

farmers had raised \$18,000, which they offered the rafter for every seed that he had, in order that it might be destroyed and ruined competition averted.

All cotton-men sneered at the story, and scarcely any of them in Atlanta took the trouble to go a few miles into the country to see what basis there might be to it. It seemed too utterly preposterous for a sensible man to entertain for a minute. There were too many elements of glaring improbability. Mr. B. T. Jackson, on whose farm the cotton was produced, is noted as an experimenter in agricultural products. His father produced the Wonder butter-bean, which has been a distinguished success, but how many failures father and son have had is not recorded. The story of the new cotton is very romantic. It is:

"Two years ago a soldier of fortune, a sort of wandering Jew, named Keil, stopped off at Atlanta and tarried awhile. He fell in with Mr. B. T. Jackson, took a fancy to him, and exhibited a varied collection of curios which he said he had gathered in his travels. Among them was a wonderful specimen of cotton. It was a cutting 18 inches long, which contained 56 perfect open bolls. He had cut it, he said, from a 20-foot stalk he found growing in front of a hut in a wild part of interior Africa, near the Congo River, 700 miles from the coast. There were numerous other stalks of the same height, and they seemed to be used for ornamental purposes."

It seems that after all there is some basis for the report, and Albert Pheris—a correspondent of the Baltimore Manufacturer's Record, a paper which has a high standing for care and accuracy in its reports—has been investigating the subject. He says: "I have several times visited Mr. Jackson's place, and have made a somewhat detailed examination of the patch, the plant, and the product. I measured the patch, and found it contained a few feet (18 square feet) more than one-third of an acre. I was informed that there had been picked some 800 pounds of seed cotton from this small patch, and there are top bolls enough already matured to increase this yield to possibly 1,000 pounds, which would be from 2,400 to 3,000 pounds of seed cotton to the acre, and this in a year of unusual and blighting drought. It is said that no commercial fertilizers were used; that the soil was selected because of the poor quality of the soil, and that the crop was raised without irrigation (which might have been supplied), the intention having been to give the severest possible test to the new variety. Grunting these conditions, the result is scarcely less than marvelous. The stalks will average six feet in height, while ordinary cotton on farms immediately adjoining, and with soil of apparently similar character, is in this drouthy year only one to two feet in height."

"I counted the open and the matured bolls only on about 100 of these stalks. The highest I found was 53; a great

many had 20, and those having less than five were very infrequent. It is claimed that ordinarily it should average 10 bolls to the stalk. The rows are two feet apart, and the plants four inches apart in the row; the stalks shoot up straight, with apparently little tendency to 'stool' or limb, and it fruits directly from the stalk. A leaf bud appears on the stalk, a short twig or stem is developed, and at the joint of the leaf and the twig the fruit, with from one to five bolls, is formed. The history of the plant so far is that when the boll matures the leaf drops off, so that there are never more than three or four leaves at a time on a stalk, they being at the top, an advantage in picking the cotton as well as a safeguard against disaster should the plant be attacked by the army worm, for he would starve to death. Some commentators have suggested that this tendency to shed its leaves may be due simply to the drouth, which somewhat similarly affects all vegetation, but this hypothesis would hardly account for the fixed habit of this plant to invariably shed its leaf only after the maturity of the boll.

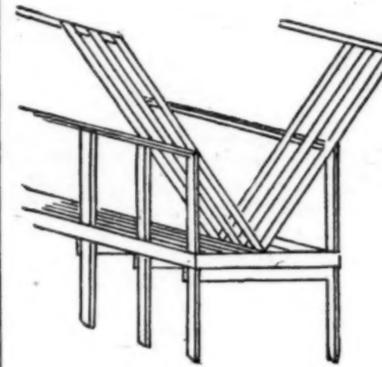
"As I remarked before, it can scarcely be claimed that this cotton has proceeded beyond the experimental stage, and until it is scientifically investigated and given the benefit of extensive cultivation throughout a number of seasons in various places, and its progress from germination to maturity and then to the loom, has been carefully noted by a number of authorities, there must be an element of speculation as to its methods and its merits; but there hardly seems room for reasonable doubt that it is a distinct and new variety of cotton, and that it will give results far beyond any variety now grown. I was talking with an expert the other day, who admitted he had made no examination of it, but who expressed the belief that it was simply one of the varieties heretofore grown in this country. I asked him if it would be possible to raise an average of 10 bolls to the stalk of ordinary cotton if it were planted, as this was, in two-foot rows four inches between stalks. He promptly declared it would not. Ordinarily, cotton is planted in three to four-foot rows, from 12 to 16 inches apart. And here, it would appear, is a radical point of advantage, which, waiving all other considerations, is sufficient to merit the most exhaustive experimentation. In an acre of ordinary cotton, with four-foot rows, and at 12 inches apart, there would be 10,920 plants. With this cotton, planted in two-foot rows and at four inches apart, there would be 66,150 plants to the acre. So that, allowing for bad season, accidents, ravages of insects and worms, it would appear that two bales to the acre might almost be counted on as an average crop. For one thing does seem to be clearly established, and that is, unlike the ordinary cotton, this plant is more thrifty and prolific when planted closely.

"At the time I visited the patch the open bolls had been pretty well picked, but at Mr. Jackson's house were a number of stalks which had been cut with all the bolls filled. No photograph had been taken of the cotton. I secured a photograph of the field, with pickers just cleaning up the patch, and had several of the stalks with filled bolls photographed. The shortest of these is about two feet high, cutting, and has 15 open bolls. I also had a bundle of

"The seed of this cotton is another peculiarity. It is smaller than that of ordinary cotton, so that 1,500 pounds of seed cotton is calculated to make a bale of the lint, instead of 1,600 pounds, as with ordinary cotton. It appears also to have a characteristic mark, a seam down the center of one side, and Mr. Jackson is authority for the statement that it germinates from the center instead of from either end, as does the common cotton. It is said there are nine seeds to each lock, invariably."

A BACK FOR FEEDING WHOLE FODDER.

Mr. C. H. Everett furnishes the *Prairie Farmer* with a description and outline illustration of a combination



feed rack for fodder, hay, straw, ensilage, grain, or meal, which he has used for several years and pronounces the best, especially for whole fodder, he ever saw. It is five feet wide, has a tight bottom, and may be made any length desired. "I built mine, however," he says, "12 feet long, as they are more easily moved than if made longer. The posts are four by four and six feet long; the slats that hold the fodder, four inches wide and eight feet long; the space between the slats is four inches. A two by four is spiked on top of the posts and another is placed through the center at the bottom; to these the slats are nailed; the bottom is made of fencing and a six-inch board is put around outside to hold ensilage, grain, etc. The rack is not expensive to build, and is strong and durable. It can be used in sheds, or half of the rack may be placed around the outside of stable. I use these racks in yard, and around the outside use half, allowing tight-board fence to form the back of the rack. I throw in bundles of fodder, reach through between the slats with jack-knife and cut the strings. The stock cannot pull the slats out and scatter them about the yard, as is the case with low-down, open racks. Every bit of foliage will be pulled off—not a particle of waste beyond the bare stalks. Whenever necessary, clean out the stalks, place them in a pile somewhere—mixing manure with them—to rot. We are about to make a rack similar to this for sheep. It will be lower, of course, and not so wide, and the slats will be placed straight up and down to avoid any litter falling into the wool. A two-by-four or fence board will be nailed on to keep the sheep from getting into the rack with the fore feet."

SMUT IN WHEAT.

The Minnesota Station has been experimenting in preventing smut in wheat. The experiments with the copper sulphate consisted of either sprinkling the grain with the solution or dipping the grain into the solution, and after each treatment part of the seed was limed and part not limed. In the hot-water treatment the temperatures employed were, for first dipping, 120° F., and for the second 130° or 135°, the times of immersion varying from two to 10 minutes. The best results obtained were those in which the seed was dipped until thoroughly wet in a solution of one-half pound copper sulphate to 16 gallons water, after which it was dried in lime; and in the hot-water treatment, where the grain was soaked in water at 120° for 10 minutes and then for 10 minutes at 135°. In each case 0.1 per cent smutted plants were grown from the seed as compared with 11 to 20.6 per cent in the check lots. Soaking the seed in cold water for 15 minutes gave 10.4 per cent smut, and in a saturated salt solution 3.3 per cent.

FLAX ON SOIL.

Prof. W. Saunders, of the Canadian Experimental Farms, has been making experiments in flax-growing. He states that "the difference in exhaustive effect of these several crops (wheat, oats and flax) on a rich soil would scarcely be perceptible, and would not justify the opinion that flax is a very exhausting crop." When grown for fiber, flax is pulled at a cost of \$4 to \$5 per acre, the yield of fiber averaging one and a half tons, and of grain eight to nine bushels per acre. The average yield in Manitoba when grown for seed in 1895 was 15 bushels per acre.



PHOTOGRAPH SHOWING HEIGHT OF COTTON. The stalks pulled up by the roots and had them photographed while being held by a negro laborer. They were average stalks, and from the root to the tip measured about seven feet.

"On one of the five-foot stalks in the house I counted 55 open bolls. I found that 32 of these bolls had five locks and eight had six, and I was informed that some had been found with as many as 10.

AGRICULTURAL PRODUCTS.

The Ways and Means Committee Hears the Representatives of the Farmers.

The Ways and Means Committee of the House of Representatives began the consideration of the Agricultural Schedule of the new Tariff Bill, Jan. 5. A large number of representatives of various agricultural interests were present and were heard.

There was a conflict between Mexican cattle and Congressman Curtis of Kansas, over the effect on cattle and beef production in this country of the Wilson rates. Representatives of the Pennsylvania and Virginia Granges asked for bounties on agricultural products. The Massachusetts fishermen and fish dealers and the salt importers and New York producers had interesting tilts. The Southern rice growers argued the necessity of higher protection, and similar arguments were presented by California fruit-growers, Philadelphia seed men, and macaroni makers, while importers of Bermuda potatoes and onions wanted concessions.

Cattle-growers had the first inning. F. H. Rockwell, of Warre, Pa., who owns grazing lands in both Mexico and Kansas, opposed high duties. He declared the McKinley rate was prohibitive and injured Americans who had invested their money in Mexico.

M. Sherman, of Salina, Kans., in talking of cost of cattle production, incidentally stated that American labor was the cheapest in the world, which provoked a laugh until he explained that in the cattle business one American could do the work of two Mexicans.

Asked why he had removed to Mexico, Mr. Sherman said because of the lack of ranges here. Chairman Dingley said there were plenty of ranges in Colorado, Wyoming, and other Western States. It was impossible to acquire title to ranges in this country, was the answer, and, moreover, said the witness, the American laws gave a man's competitors the advantage of all the improvements he introduced into his business. In Mexico the cattlemen owned their ranges.

KANSAS NOT BACKWARD IN ASKING.

Representative Curtis, of Kansas, appeared as the advocate of the American cattle-raisers, feeders, and farmers of Kansas, and asked to have restored the duty of \$10 a head on all cattle one year old and over and \$2 a head on calves less than one year old. He declared that the importations of Mexican stock had injured the business in Kansas, and consumers had been fed a poorer quality of beef. "If Congress will restore the duty," added Mr. Curtis, "Kansas will pledge herself to produce her share of cattle without raising the price of beef."

Representative Turner, of Georgia, asked Mr. Curtis if he would sacrifice the revenue of \$432,000 produced from cattle.

"Revenue can be raised on other items," was the reply, "as it has been heretofore, by Republican legislation. There never has been any trouble about revenue under Republican administration."

"Then you are for a duty for protection only?"

"I am for protection and revenue. And I would have a duty absolutely prohibitory on every agricultural product that can be raised in this country. Kansas would like duties on hay, oats, and flaxseed."

"How about silver?"

"A large duty on silver would be a good plan."

Representative Blue, of Kansas, spoke for a duty on cattle which would accomplish the practical exclusion of the lower grades.

Mr. W. B. Sutton, formerly of the diplomatic service, recommended an ad-valorem tariff on cattle. If Mexican cattle were again barred out Mexico would retaliate against our hogs.

Mr. Tawney called attention to the fact that the discrimination against hogs was continued.

Mr. Sutton asked him to consider American investments in Mexico.

INTERESTS OF CALIFORNIA PRESENTED.

Representative Bowers, of California, declared that the Wilson law had killed the cattle business in California flooding the State with Mexican cattle. Labor was 50 cents a day in Mexico. He combated the statement of the cattle-raisers that but few of the Mexican stock imported were sold, being brought in for feeding. Not more than one in 10 were imported for feeding.

Macaroni was represented by A. J. Toomey, of New York, a manufacturer

nia fruit-growers, asked for higher duties on fruits. The \$16,000,000 worth of fruit imported annually, he said, might be grown by Americans. He suggested duties of three cents a pound on raisins, plums, prunes, and all other dried fruits, and 20 cents a cubic foot on oranges. Americans were peculiar about some things, and preferred foreign wines and fruits at higher prices, just as some of their daughters preferred greasy libertines and gamblers because they had a foreign label. He read petitions from raisin-growers of Fresno and other places.

Senator Perkins, of California, presented the memorial recently adopted by the State Fruit-Growers' Organization. In addition to the recommendations by Mr. Bowers, he asked for duties on nuts and lime beans and chicory, and that the duty of the Wilson law on cocoanuts be dropped.

The duty asked on lime beans was 50 cents per 100 pounds; on raw chicory, one and one-half cents a pound, and on manufactured the present rate of two cents. A duty on pearl barley was asked also. The almond growers of California were represented by T. B. Armstrong, of Camp. He stated that from \$12,000,000 to \$15,000,000 was invested in the business and from 20,000 to 30,000 hands employed. The business had been brought to the verge of bankruptcy by the Wilson law, and an increase of rates from three cents to six cents was asked.

EXPORT BOUNTIES ADVOCATED.

David Lubin, of California, made a brief speech in advocacy of export bounties on agricultural products.

Grand Master Rhone, of the Pennsylvania State Grange, advocated protection for the farmers. While the leather manufacturer was doubly protected a Republican Congress had placed raw hides on the free list, refusing to give the American farmer the same protection given the manufacturer. A Republican Congress had reduced the duty on wool, and a Democratic Congress had placed wool on the free list. The farmers knew that protection could not do for them what it did for the manufacturers. It could not add a cent to the price of wheat or flour. Therefore the only protection for the farmer against the cheap lands and cheap labor of the world was by export bounties on corn, cotton, wheat and other products.

State Senator G. C. Brown, of Pennsylvania, a member of the Legislative Committee of the Grange, presented a memorial from that body. It asserted that the prices of many agricultural products were below the cost of production and that the opening of the Siberian Railway by Russia would open great tracts of land to be cultivated by improved machinery which would reduce the prices of cereals. Export bounties were asked.

At the afternoon session a committee consisting of Burnet Landreth, W. F. Drew, and W. A. Burpee, of Philadelphia, representing the seed farmers, laborers, and importers, asked that the present ad valorem rates be changed to specific duties levied by the bushel or pound.

A. J. Wedderburn, Master of the State Grange of Virginia, spoke briefly for protection for the farmers.

Edward N. Loomis, for the produce merchants of New York, asked for a lower duty on Bermuda onions and potatoes during March, April, and May than during the rest of the year.

CLAIMS OF SOUTHERN RICE DEALERS.

The rice interests were represented by a large party. The delegation included Theodore G. Barker, Samuel G. Stone, and Isaac Bull, of the Charleston Chamber of Commerce; Fred G. Ernst and Emil Dupre, of the New Orleans Board of Trade; Charles A. Lowry, Miron Abbott, and C. L. Crippen, representing the planters of southwest Louisiana, and George G. Bauer, of the Lake Charles (La.) Board of Trade. The spokesman, Thomas J. Barker, said that the industry was absolutely dependent upon protection.

In the two Carolinas, Louisiana, and Georgia the crop had been reduced one-half by the reduction of the tariff, on account of the competition of Asiatic cheap labor. The opening of new lands in southeastern Louisiana and Texas promised to supply the market of the United States—with proper stimulus.

An article called unclean rice was evading the duty, and should be barred out.

In answer to Mr. Turner, the witness said that there had been a large increase in the crop in the past few days. The duty asked was two cents a pound on cleaned rice (present rate, one and one-half) and on unclean rice one and one-quarter (present rate, eight-tenths cent).

Mr. Ernst spoke of the necessity for a more strict classification of varieties of rice. Macaroni was represented by A. J. Toomey, of New York, a manufacturer

of raw materials. The American and foreign manufacturers were on the same plane. The average wages paid in the United States were \$11 a week to men, \$5.50 to girls, 67 per cent of the workers being the latter. The average wages in Italy was \$1.66 a week. The restoration of the McKinley rate of two cents a pound, instead of the Wilson 20 per cent ad valorem, was asked.

TWO SIDES TO THE SALT QUESTION.

Franklin Woodruff, of Brooklyn, an importer of salt, held that a duty on that product fell heavily on the Southern States and New England. He was subjected to a lively cross-examination by Messrs. Payne and Grosvenor, and declared that under the Wilson law the Syracuse salt was more largely sold in New York markets than the foreign places.

Mr. Payne—Has not the effect of the Wilson bill been to take the making of most of the salt consumed in this country from American workmen and to give the business to foreigners?

Mr. Woodruff—It may have had that effect.

Mr. Tawney—What has been the difference in price?

Mr. Woodruff—About equivalent to the difference in the tariff.

THE DUTY ON WOOL.

Jan. 6 was mainly taken up by the wool-growers. Most of the time was consumed by Judge William Lawrence, of Ohio, President of the National Wool-Growers' Association, and Theodore Justice, a Philadelphia wool-dealer.

The recommendations of the growers were for a rate of 12 cents on unshorn wools, 24 cents on washed, and 36 on scoured, the Australian unshorn to be classed as washed, and all rates to be advanced half a cent a year for six cents.

Mr. Justice presented a great array of statistics to show the ruin of the wool business by the Wilson law. He combated the idea that the rates demanded by the growers were too high, and stated that the decrease in the prices of goods to consumers under the Wilson law was equivalent to the reduction in the Tariff.

John G. Clark, of the Washington County (Pa.) Wool-Growers' Association, said the experiment of free trade has been a crime. The value of lands had declined and sheepmen in all parts of the country had been driven from business. The sheep-raisers asked only a moderate duty that would enable them to continue in business.

The Democratic members of the committee probed the witness



A Horseman's Vocabulary.

The following are a few of the terms which are used by all interested in horses:

Amble, a gait like pacing, but slower, in which the two legs on the same side are moved together.

Appel, the gentle tug on the rein given by the horse at each step.

Croup, that part of the horse back of the saddle.

Bore, to bear on the bit.

Bucking, leaping vertically into the air with all four feet stiff, and coming together on the ground.

Elbow, joint of foreleg next above knee, lying next to the horse's side.

Fetlock, joint next below knee.

Forearm, that part of the leg between elbow and knee.

The Hog.

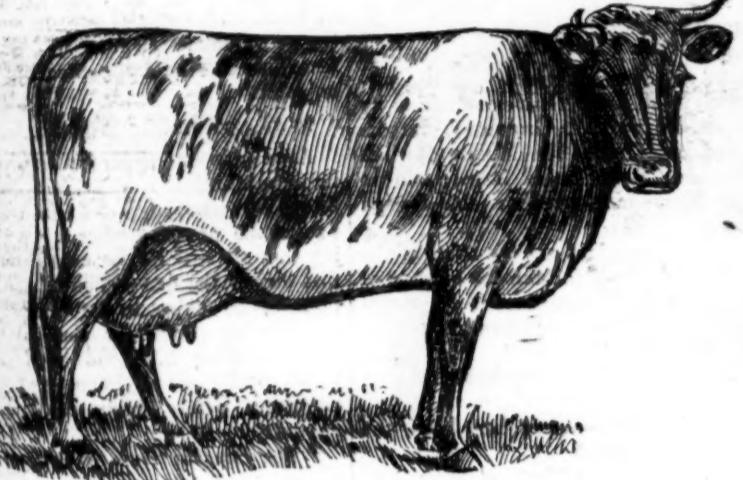
All-corn-fed hogs are not the best for choice meat. The hog products which command the highest prices in English markets come from the countries which are not noted for the production of corn—England, Ireland, Denmark.

If one can fit up an apparatus easily for doing the work, it will pay to cook the small potatoes before feeding them to the hogs; the hogs will thrive better, and the potatoes go further.

Mother sows require more than twice as much food as the other hogs when the pigs are three weeks old, and, if they do not have it, both the sows and the pigs will suffer. While there must be caution at first, the rule is to feed the brood sows liberally.

It is well always to select the breed-

Alice Douglas 4398—Ayrshire.



Alice Douglas 4398 was owned by Mr. George A. Fletcher, of Milton, Mass. She is described as having been frequently tested by her owner, and has a record of 4072 pounds of milk in seven days, 1,695 pounds in 30 days, and 4,031 pounds in 80 days. From February 10 to August 6, 1886—181 days—she gave 8,250 pounds of milk, an average per day of 45.56 pounds, or 21.19 quarts. When four months in milk she made a butter record of 10 pounds 12 ounces in seven days.

Forge, to strike the toe of the forefoot with the toe of the hind one; very often the result of bad shoeing.

Frog, a triangular piece of spongy horn in the middle of the sole of the foot.

Grinders, the back teeth.

Hand, one-third of a foot; four inches.

Hand gallop, a slow gallop.

Hock, joint of the hind leg between the thigh and the shank.

Interfere, to strike the fetlock with the foot.

Nippers, the front teeth.

Pace, a rapid gait in which the forefoot and the hind foot on the same side move at same time and strike the ground together.

Pastern, the bones between the fetlock and the foot.

Poll, the top of the head between the ears.

Rack, a very rapid gait, similar to the single-foot.

Withers, the highest point of the shoulders, between the neck and the back.—*New York Times*.

QUEEN VICTORIA'S CATTLE.

They Were Sold, but Her Majesty Will Not Eat the Beef.

As advertised in the Meat Trades Journal, the annual sale of the Queen's Christmas stock took place on Wednesday, 9th inst., at the Prince Consort's Flemish farm in Windsor Great Park.

Messrs. Buckland & Sons were the auctioneers, and the buyers came from London, Liverpool, Leeds-Birmingham, Hull, Winchelsea, Portsmouth, the Isle of Man, Chesterfield, Blackpool, Rendlesham and other parts of the country.

The weather was cold and showery. Previous to the selling the visitors were entertained by Mr. Tait, Her Majesty's Land Steward, in one of the homestead buildings, which had been prepared for the luncheon. The catalog comprised 25 Devon, Shorthorn and Hereford bullocks; 420 Hampshire Down and South Down sheep and lambs, and 110 bacon hogs and porkers. Excellent prices were made for most of the animals, all of which had been fed upon the royal farm. Devon bullocks fetched from \$27 to \$43 each. Devon heifers from \$22 to \$25. Hereford heifers \$19; Shorthorn steers \$38 to \$40, and a Shorthorn boifer \$35. Hampshire Down wether sheep \$3 10s. to \$5 10s. Hampshire Down lambs 65s. to 75s. 6d. South Down wether sheep 57s. to 64s. South Down lambs 46s. to 62s. Berkshire bacon pigs \$9 to \$13. Berkshire fat hogs £3 10s. to £13. Berkshire porkers 40s to 75s. and White Windsor boar porkers 42s. 6d. to 27 each. The total amount realized was \$8,130. Prior to the sale Mr. Buckland announced that he was instructed to say that neither at the present sale nor any other future sale or show of Her Majesty's stock would any "order" be given to purchasers of stock to supply meat to the royal household.

Yard Echoes.

Starting with a freak member of his herd of thoroughbred Hereford cattle, Gen. W. W. Guthrie, of Atchison, has established a breed of polled Herefords, now in the fifth generation. Only two of 23 calves dropped last season had horns. His will be the only herd of the kind in this country, or probably in any country.

Sheep as Fertilizers.

It is often remarked that the deterioration of pastures is largely due to the absence of sheep. Prof. Thomas Shaw writes in regard to the value of sheep in sustaining the fertility of soil as follows:

"Beyond all question sheep stand at the head of all kinds of domesticated animals as fertilizers of the soil. This statement will certainly hold true when we couple the amount of fertility made with its even and cheap distribution in the soil. Sheep manure is very rich in plant food. During at least seven months in the year they distribute it upon the soil, and about as evenly as it could be distributed by a manure spreader. In some seasons they thus spread their own droppings for eight months in the year, even in sections north of the Twin Cities. And owing to the peculiar formation of the foot, and to their much walking while they are feeding, they bring their droppings into close contact with the soil.

"Owing to the peculiar nature of the droppings they are not liable to be wasted by insects, and they do not lose their virtue in being washed away over the surface of the soil. When sheep manure is accumulated in sheds or yards there is not a loss of liquids to anything like the same extent as with some classes of animals, since they are not tied in the stall. The bedding absorbs the liquid.

"The value of sheep as fertilizers has long been recognized in Britain and other sheep-growing countries. Hence they have been much used in that country in feeding off certain green crops, as roots and rape, largely with a view to increase the plant food in the soil and thus prepare it for growing crops that must have accumulated fertility to grow them in good form. In Britain the sheep are herded while thus engaged, partly to avoid wasting the food by unnecessary tramping, and partly to secure an even distribution of the manure over the soil.

In this country the practice of eating off grain crops with sheep is just in its infancy. And where the plan has been adopted hurdles have not been used. Land with us is more plentiful than in Britain, and labor is dearer, hence there may be more profit to us in the plan we adopt."

The Sheep.

The sheep is an animal that must be kindly treated.

A yearling Rambouillet ram in Ohio weighs 250 pounds.

Nothing but the very best sheep should be kept. The best are profitless enough now.

Cows average 124 pounds of butter in a year, and the average price is 16 cents a pound. Ten cows would produce \$198.40. One hundred ewes can be kept on the same feed that will keep 10 cows. The ewes will each produce a lamb worth \$2.50. They will yield each seven pounds of wool at 14 cents a pound. Seven hundred pounds of wool is worth \$98, making an income which is the sheep of \$348.

The Stable Floor.

There is no doubt about the durability and desirability of cement floors for stables, for walks, and many other purposes, and where the right kind of sand or gravel can be had without much cost such floors are not expensive, as to first cost, and in the long run would be cheaper than wood. The materials required are Portland cement (inferior cement is not likely to be satisfactory, and is quite sure to be the costliest in the end), and good, sharp, clean sand or coarse gravel.

If the latter contains some stones up to the size of a hen's egg, no harm will be done. The sand or gravel must be free from earthy substances. Clay or mold in it will make weak places in the floor, making it practically worthless. The proportions of the two should be one of cement to four of sand, which makes a strong but very smooth fabric.

If a fine, smooth finish is required, make a thinner mortar of half and half fine sand and cement and apply a thin coat, say half an inch thick, after the first has set. If when it will not freeze, any solid earth foundation will do. But if freezing and heaving are possible, make the base of sandy soil well compact. The cement base should not be a mortar, as for plastering, but thick and crumbly, and so worked together that the whole mass will be moist, and that both materials will be thoroughly incorporated. Each particle of sand needs to be in contact with some cement. The mixing should be thorough while dry, and after the water is added the mixing necessary to make the whole moist will be sufficient. On a good foundation two to two and one-half inches thick is sufficient to give all the strength required. As the cement is spread it needs to be compacted with a pounder of some kind. If properly made, such a floor becomes as hard and durable as rock.

Contrary to general belief, the Sahara is not a barren and worthless waste. Some time ago there were 9,000,000 sheep in the Algerian Sahara alone, besides 2,000,000 goats and 260,000 camels. On the oases there are 1,500,000 date palms.

Feeding Calves.

Two calves from grade Jersey heifers were left on their dams until six and three days old respectively. The first day from dams, the calves were fed freshly-drawn mother's milk with nothing in it. The second day five-eighths mother's milk and three-eighths separated milk was fed. This proportion of mixing was continued five days. Then one pound of fresh milk to four pounds of separated milk was fed five days. The third period of five days the calves drank six pounds each of separated milk twice daily with one ounce of ground oats stirred into each meal.

During the fourth period of five days seven pounds of separated milk with one ounce each of ground oats and wheat were consumed at each of two feeds by each calf. For the fifth period of five days eight pounds of separated milk with one ounce each of ground oats and wheat as before, constituted the feed per meal or evening for each calf.

From the beginning of this feeding about a spoonful of lime water has been added to each feed. There was no scouring and both calves have grown well. This is shown in the gains of over one pound for one calf and one and one-quarter pounds for the other calf per day.—*F. E. Emery, Agriculturalist, N. C. Experiment Station.*

Sugar-Beet Pulp for Cows.

The California farmers are awakening to the value of sugar-beet pulp as cattle feed. Many have constructed silos large enough to contain a few hundred tons of pulp. These are filled during the dry season, when teams are idle, and form an excellent store of food during the following Winter and Spring. The price for well-pressed pulp, delivered into the farmers' wagons at the factory, is 15 cents per ton, and a cheaper supply of good cattle-feed is hard to imagine. Farmers have been somewhat slow to appreciate the value of this nourishing product, but the consumption is steadily increasing, and little if any pulp will this year be thrown away and wasted.

True

Merit is characteristic of Hood's Sarsaparilla and is manifested every day in its remarkable cures of catarrh, rheumatism, dyspepsia.

Hood's Pills are harmoniously with Hood's Sarsaparilla, 25c.

AGRICULTURAL PRODUCTS.

(Continued from first page.)

"It would be strange if they did not prosper when they made their own schedule," Mr. McMillan commented, and then asked: "Was it not a fact that the manufacturers got the benefit of a part of the specific rate imposed for the alleged benefit of farmers?"

Mr. Justice assented, and continued that the farmers had disposed of all their clip under the McKinley law to the American manufacturers, who in turn had increased their exports.

A NATION CLOTHED IN SHODDY.

Referring to shoddy, he said that while the annual importations of it under the McKinley law had been 250,000 pounds, between August and December of the year the Wilson law was enacted there had been 4,000,000 pounds imported, and in the first full calendar year under that law 20,718,000 pounds. The theory of the framers of the Wilson law had been that free wool would stop importations of shoddy. No nation had ever used as little shoddy as the United States under the McKinley law. The explanation of the increased use of shoddy was that the increased importations of cheap clothes under the Wilson law compelled the American manufacturer to make such cheap clothes to compete with those he was obliged to use shoddy. Moreover, there had been less money earned by all classes under the Wilson law to spend for clothes. The decrease in price to the purchaser of woolen goods under the Wilson law had been about equal to the decrease in the tariff on the goods.

AN IMPORTER'S POINT OF VIEW.

B. C. Moses, an importer of Australian and South American wools, contended that the duties asked by the Wool-Growers' Association were prohibitive, and would mean death to the manufacturer. He did not believe public opinion nor the good sense of the committee would sustain such a schedule, but he did believe present conditions demanded an adequate tariff on wool. The arguments against ad valorem duties, which applied to manufactured goods, did not apply to wool, whereas the difference in the amount of dirt contained in different wools made specific duties unjust.

Delegate Catron of New Mexico, stated that the value of the wool produced by the 3,000,000 sheep in that Territory had decreased on an average of 11 cents a pound since the enactment of the Wilson law. He suggested specific duties on third-class wools.

Senator Carter and W. G. Conrad, of Montana, appeared in behalf of the wool-growers of their State, and filed statements with the committee.

Jessie M. Smith, of Utah, President of State Wool-Growers' Association, as

serted that as sheep raising east of the Mississippi River was greater than west, the Western men would be satisfied with any tariff which the Easterners would accept. Their greatest necessity was a stable tariff, which would remove uncertainties. The sheepmen of Utah had been losing money for four years.

COMMITTEE MEMBERS HAVE A SPAT.

When Mr. Smith stated that much of the wool of Utah was still in the hands of producers, Mr. Steele, of Indiana, suggested that all of it would have been had Bryan been elected.

Mr. Wheeler asked: "Don't you think if Bryan had been elected the general revival of all industries would have raised the price of wool?"

"I don't," was the answer.

Wilson H. Brown, of Philadelphia, protested against discriminating against the manufacturer by any scheme in involving duties on wool.

John Ridway, of Philadelphia, spoke for protection to the workingmen by a schedule which would exclude skirted wools from Australia and give employment to the wool sorters of the United States, who were now walking the streets.

S. Muhlhauser, of Cleveland, O., a large maker of shoddy, said that he used the cuttings and waste material of wool and woolen mills. He supplied all the large manufacturers with shoddy, which they used for backing. They had to use this product to compete with foreign cloth. The better class of his output contained 12½ per cent. of wool. He used foreign rags because they were better sorted and cleaned, but in prosperous times he had consumed principally the cuttings of tailor shops and mills. At present his mill, which employed some 700 hands, was closed. He would not object to a 2-cent rate on rags, which, according to the present imports, would yield a revenue of \$450,000 per annum.

E. Rinke, of New York, speaking for makers of wool hats, called attention to the injustice under the present law, of classifying woolen hats with blankets or the lower grades of wools. He desired a duty, as nearly as possible, to conform to that given by the McKinley law.

"I do not attribute all the suffering to the skirting of Australian wool," said the witness.

G. C. Moses, of Maine, said that what all manufacturers wanted was a tariff of such a moderate nature that it would not be upset in a few years. The change from the McKinley to the Wilson bill had cost his company \$100,000. He said he had been a Democrat all his life, and was one of the original "free wool" men. He had changed his mind regarding wool, however, having become convinced that conditions here did not warrant the admission of that product free of duty. His statement that he had cast his first Republican vote for McKinley caused considerable amusement, and Mr. Grosvenor, of Ohio, remarked that he was getting in good company and hoped he would stay.

G. N. D. North, of Boston, Secretary of the National Association, presented the views of that body. He said the association counseled moderation in fixing rates, and expected only adequate protection, such as experience had proven was necessary to enable them to continue and extend the industry. They desired a chance to reopen their mills, but they neither asked nor desired excessive duties, being convinced that the best interests of both the wool-growing and wool-manufacturing interests would be protected by the enactment of a conservative and reasonable tariff, and that some promise of permanence would thus exist. He said that the months immediately preceding the revision of 1894 and the two years subsequent included the most disastrous period in the history of American manufacturers. This statement was made without any reservation or qualification whatever. During a great part of this period the bulk of the woolen and worsted machinery of the country had been wholly or practically idle; much of the remainder had made goods that were either marketed at a loss or were still in stock. The domestic market for woolen goods had since been in a state of absolute demoralization. The manufacturers were not so blind as to attribute the whole of this prolonged paralysis to the tariff revision of 1894; other causes had been at work, and all industries had suffered. But there must have been a

special cause why the wool manufacturer had suffered far more than any other and why the prospect of a general business revival brought no promise of any improvement to this particular industry. The special cause was revealed in the records of woollen imports, a table of which he presented.

This table showed that the imports of cloths in the year 1895 ran up to 40,070,000 pounds, almost equal to the entire imports for the years 1891, 1892, and 1893, under the act of 1890. The largest quantity of cloths imported in any one year previously was 16,248,313 pounds in 1892. The total imports of manufacturers of wool in 1895 were valued—or undervalued—at \$60,319,301, foreign valuation. The duty-paid value of these goods was about \$90,000,000. The value of the domestic product in 1895 was about \$250,000,000. In other words, the duty-paid value of the imports of 1895 was about one-third of all woollen made in American mills in a year of manufacturing activity such as 1890 was. They were equal to about one-half of the domestic production of 1895. It was this torrent of importations pouring in at the rate of \$5,000,000 a month all through 1895 which broke down the market; and the essence of this whole question lay in the fact that no recovery of that market to a point where the manufacturers could get back a new dollar for an old one, seemed possible under existing tariff conditions.

The ad valorem basis of the tariff had allowed the importation of the lowest and meanest descriptions of goods made in the world—the peculiar products of the Batley and Dewsbury districts in England, where they had reduced to an exact science the business of spinning wools out of shoddy, mungo, wastes, coo's hair, and other "rubbish" in the spinning and weaving of which the American manufacturers had not learned the rudiments, although it was clear that they would have to learn them if they must compete with this class of goods in the market. The complaint of the domestic manufacturers, in a word, was that the higher grades of American goods had been compelled to compete for their own market at prices fixed or governed by these



Cacklings.

Only the best fowls are suitable for breeding.

When possible, give geese a pasture to themselves.

A scratching-pen is one of the Winter necessities for fowls.

Pekin ducks are profitable, both as market fowls and egg producers.

If the hens are expected to lay in Winter they must have warm, dry, sunny quarters.

Young chickens being finished for market should be fed separate from the other kind of fowls.

Hens do not care anything about the looks of a house; it is comfort that is the main thing with them.

The farmer's poultry-house should combine cheapness, warmth, and convenience as the principal essentials.

One of the essential items in the management of hens is not to permit the hens to be idle; keep them scratching.

For eggs alone, no breeds surpass the Leghorns and Minorcas. For eggs and meat, the Plymouth Rocks are better.

If the poultry is given a little of the care so freely allowed to the other stock it will pay a better percentage on the investment.

Poultry can never be raised successfully if the poultry-house be damp. Poultry must have dry houses and runs to be thrifty.

You can never get a uniform flock if you use mongrel or grade males, or if you change the breed every year or so. Change blood often, but use a male of the same breed, and you will see improvement each year.

Exercise is a necessity, both for health and for eggs. Confine a lot of hens and feed them to produce eggs, and unless some means have been provided to make them scratch for the grain given them, the result will be a lot of over-fat, lazy fowls that sit around and do nothing.

Give the children a chance to make some money. A couple of hens, ducks, geese, or turkeys will start them to figuring and to working. The little money earned will be a great pleasure to them. You can afford to give them the grain to feed their fowls, if they will put in the work. They will thus be taught to study the needs of the poultry, and become wise in all that regards feathered stock. Their little trials and triumphs will be remembered by them in the years to come, and cause them to think with pleasure of the old home.

Combine Poultry and Dairying.

Prof. John A. Myers, Director, West Virginia Experiment Station, writes:

If we combine the dairy and poultry businesses, we make a most happy union, and I have often wondered that our dairymen do not place more emphasis upon poultry as a source of income.

The poultry business requires no large amount of capital, and labor upon the farm that would otherwise be idle can very largely be utilized in caring for it.

The same families that take the dairy products will be only too glad to get the poultry supplies, so that there is no additional expense in marketing the supplies. Every hen, properly cared for, can be expected to pay the owner at least one dollar net per year in eggs, and considerable additional, either in form of eggs or of chickens raised for sale. Considerable poultry can be kept largely upon what would otherwise be wastes of the dairy business. Butter-milk or skim-milk fed to hens will pay better than used any other way with which I am acquainted. There are wastes about the dairy stables which cannot be utilized in any way as effectively by poultry, which pick up the lost grain, whether in the manger or in the manure pile, and convert it into profit.

Poultry properly handled gives the farmer a certain and ample income at the time of year when dairymen are generally most anxious to have the deficiencies of the dairy made good, and there is never a time in the year when poultry products may not find a fair market.

Much of the mixed food for dairy cattle is admirably adapted for feeding poultry; little additional building is necessary; no additional help is required.

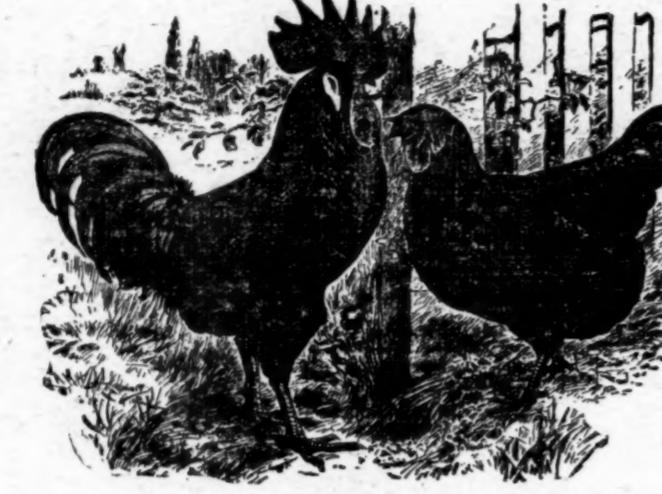
For myself, I prefer the egg-producing varieties to the all-purpose fowl, or fowl that is especially adapted for killing as meat. In the long run I think the egg-producers more profitable than the meat producers, but that is a question of taste, and the point is not to keep any fowls upon the farm that do not pay a profit to the owner. The man who expects to secure both qualities in a chicken is like the man who wants a good beef and a good dairy-cow in the same animal. It is best to determine what a man wishes to do, and work to that end.

Experiences with Fresh Eggs.

It is a fact that nine-tenths of the residents of cities do not know where to buy strictly-fresh eggs. This is no doubt a strange assertion to make in the face of the fact that thousands of dozens of fresh eggs are sold in this country every day, and especially when the purchaser gets them from "an old farmer." But even the old farmer is not always any wiser than the customer, allowing for producing them himself with the aid of his hens, but some old farmers buy eggs or bring them to market for their neighbors. There is a great deal of "faith" in buying eggs, and much depends on "confidence" and from whom they are purchased. A party who had a large flock

Ducks.

Ducks become weak in the legs and die when fed too much grain, and they cannot be fed the same food as the hens



PAIR OF BROWN LEGHORNS.

supplied his brother in the city. Soon the brother's next-door neighbor requested that he be supplied, and soon after several other neighbors desired a like favor. All of them were willing to pay extra for the eggs, but that confidence in the one who sold them. He was compelled to refuse some of the would-be customers, from lack of supply, which only made his eggs the more desirable. Now, the market was amply supplied with "fresh" eggs, but that fact did not alter the circumstances so far as he was concerned. Cannot the reader learn a valuable lesson from this experience?

Feeding for Eggs.

Farmers generally feed too much corn; its fattening properties are so great that it should be fed sparingly, except that for the night meal on a cold day corn is excellent.

Warm milk or water should be provided liberally. Liquids are necessary for the formation of egg. Scraps from the table, peelings and cabbage are relished by "biddy."

The Manitoba Experiment Station has found the best egg-ration to consist (for morning) of warm mash composed of ground wheat, ground oats, ground barley or ground rye and bran—a little of all sometimes, and again only three of the ground grains. Enough of this feed to satisfy but not to gorge the hens.

Na—A little grain of some kind to keep the hens busy scratching. Afternoon—A liberal ration of wheat or buckwheat, mostly the former.

The Toulous, with its gray feathers, and the Embden, with its white, are the favorites, and make heavy weights for market; the former growing so large that they are hard to handle. The trouble is less and the profits larger than with either chickens or turkeys, and they may even be reared away from water, though not so well.

A good pasture is all the food they need in Summer. They begin laying when one year old, though they are not matured until the third year, and their eggs are not reliable for hatching until the goose is 15 months of age.

The young need some care until they are six weeks old, after which time they will be feathered out and can shift for themselves and join the old ones at the pond.

A crop of feathers can be plucked two or three times during the Summer, and these are no small part of the income from the flock. Shut them up a few weeks before killing, and they will grow fat quickly and bring handsome prices.

Warm Feed.

It is unnecessary to give warm food during the day, though early in the morning, when the hens come off the roost, on cold days, a warm mess and warm water will invigorate them, but during the day the best way to keep them warm is to make them scratch and circulate their blood.

Hen Manure.

Most farmers will wish to use the manure from the henhouse as direct application to the crop, either by drilling it with the seed or dropping in the hill when corn or potatoes are planted. It is best to keep the excrement as free as possible from straw or other rubbish, and to put it into a large box, making it as compact as possible, so as to heat more quickly. Some German potash-salts should be thrown on it with each new addition of manure. The excrement will heat even in cold weather, and this will mostly dissolve the lumps, leaving the manure in fine and dry powder. A very little of this fertilizer mixed with soil will give plants a vigorous sendoff, and in rich land will insure a crop. Even on poor soil the hill manuring will start the roots earlier on their travels, and insure a larger crop, for even in the poorest land, especially if heavy soil, there is much fertility locked in clods, which plant-roots will penetrate while the soil is moist in Spring, but which cannot be got at when Summer drouths take these so hard that nothing can penetrate them.

Beecham's pills for constipation 10th and 25th. Get the book at your druggist's and go by it.

Annual sales more than \$500,000.

THE APIARY.

Humming.

If any colonies are queenless, unite them with others.

Never allow a swarm of bees to remain long after settling; hive them as soon as possible.

Keep the brood in the center of the hive if possible, and the honey on the outside.

All combs that are built by bees naturally contain too much drone comb.

Foul brood is very contagious, and will spread with great rapidity over an apiary.

Curing honey simply means a proper evaporation of the water it contains. This is accomplished in the hive by a high degree of temperature, and can be done outside by maintaining the same conditions.

Colonies that lack stores for the Winter should be fed the required quantity in the Fall, and September is the best time to do it. It should be done while it is yet warm enough to allow the bees to seal the stores over.

Every colony should have 25 or 30 pounds of good sealed stores to bring them through to the first of May, with good Winter protection besides. It is far better to have a little too much stores than too little.

Strong colonies of bees sometimes become suddenly depleted in number, with not enough left to keep up the necessary warmth to hatch the eggs. This is because no young bees have been hatched, and the old ones, superannuated, left the hive in search of food, and were not able to return.

Hives for Farmers.

To the experienced beekeeper the subject of hives is of very little consequence, for he would probably do very well with almost any kind of hive; but to the novice this is a very difficult problem. He is advised to purchase a frame or patent hive. But there are so many styles, and each one claimed to be the best, that he is at a loss to know which to purchase. And just when he gets deepest in the maze of uncertainty, not knowing which hive to select, some patent-right vendor comes along and offers to sell him the right to make and use a hive which is self-regulating and self-operating—will make honey without any bees, but he advises you to put a few in just to oversee business. His "overseers" soon go where "the woodbine twineth," and he wishes that the fellow who sold him the patent-right was there to care for them. The writer has experienced very little of such chagrin himself, but knows of others who have, and it is in the hope of shielding others from disappointment that I write this.

What kind of a hive shall we use? This depends on several conditions. I don't believe, all things considered, that it will pay the majority of farmers to purchase any kind of frame hive. I have reached this conclusion after several years' experience with bees, and after reading all I could find on the subject, and I have come to this conclusion for the following reasons: In the first place, unless he wishes to handle his bees more than the average farmer does, he cannot afford to pay the extra amount on the first cost of the hive; for the only advantage the frame hive has over the old box or gum, is the ease with which it may be handled, and the exact condition of its inmates ascertained.

Unless he buys a chaff hive, which he cannot afford to do, the thin walls of the common hive do not afford the protection in Winter which the box hive would, if properly made.

If the apiarist does not exercise the greatest care in preparing the bees for Winter; if he does not see that the cover is thoroughly sealed down or a top story is placed on the hive, and in this a heavy chaff cushion well tacked down (which is far better), there are almost sure to be small holes under the cover which will cause a draft and freeze the bees, icicles forming right down through the cluster. If it does not do this, it will keep the temperature so low in the Spring that they are enabled to raise very little brood, and of course are not prepared for the honey flow when it comes. And again, if the colony is weak and there are holes around under the cover (unless he has Italians), it furnishes an admirable chance for the moth to get in and deposit enough eggs to destroy the colony in short meter, unless the busy farmer can stop and attend to the bees just when attention is needed, which is sometimes very difficult.

In using frame hives the novice is a great deal more apt to injure them, for he will be so zealous in his care for them, early in the Spring, that he will wish to see them every few days; he will open the hive and disturb it so that some of the brood will probably be killed; if not, brood rearing will receive such a shock, from which it will take several days to recover, and just as it has about recovered, he will again become anxious concerning the welfare of his little pets, and give them another setback, and so on ad infinitum.

We know that the only possible good that frame could do in a hive would be to facilitate handling. But there are several objections to their use, one of which we will mention. It furnishes a first-class worm-harbor. This is especially the case if they are not made and put together true, and do not fit nicely in the hive.

We have now presented some of the objectionable points in a frame hive, but we would not discourage their use, for we would use no other. But to our brother farmers, who are so busy during the Winter, the income is nothing else but what has been earned during the Summer. Why not increase the Winter earnings by building snug poultry-houses, studying up the question of Winter eggs and Winter poultry, and devote your time to gradually building up an industry that each year will ana-

very little attention we would say, let the frame hives alone or you will be disappointed, for experience has proved that bees will gather about as much honey in an old box or nail keg as in the nicest frame hive, and if that box is made of two-inch lumber, they would have the very best kind of Winter hive (the chaff hive excepted, of course), and would be in the very best possible condition to care for themselves, if they are to have no other care. But if you can afford to spend a little time with the bees, or what is better, if you can persuade your better-half to assume the responsibility of giving them good attention (attention prompted by a study of the subject), by all means get her some good frame hives to put them in, for if you wish to give them good care a frame hive is indispensable. We believe the dovetailed is as good as any, and probably the cheapest.—*Jos. H. Place, in Michigan Farmer.*

Bee Devices.

The Michigan Station has been making some very careful experiments.

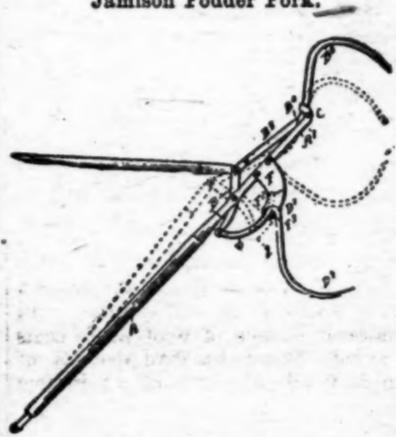
The Langdon non-swarming attachment to hives was employed on three styles of hives to test its value, but with unsatisfactory results, the surplus honey produced being only from 65 to 75 per cent. as much as in the ordinary way.

The tendency to swarm was subdued after several ineffectual efforts had been made to leave the hive, but the queens were frequently lost in the attempt and the colonies retarded.

An automatic hive was employed to see if it possessed its recommended value in doing away with the necessity for watchfulness of the apiarist in the hiving of swarms and the prevention of their escape. The results were unsatisfactory, as the honey produced was of small amount and the hives were found not to restrain the tendency to swarm after it had once been established until all the queens had been destroyed or otherwise disposed of.

A small smoker is preferred, and bee escapes are considered of value for clearing supers of bees, if properly used. Setting frames with heavy top bars was found to prevent the formation of burr comb. For cleansing the wax a tablespoonful of sulphuric acid to 12 pounds of boiling wax was used, with the effect of very much improving its appearance.

Jamison Fodder Fork.



For handling fodder and "saving time, temper, hands, gloves, and clothes."

The Consequences.

His wife's millinery bill slipped from his nerveless fingers.

"The consequences of your extravagance," he solemnly exclaimed, "be upon your own head!"

They were, with the exception of Thursday afternoons, when the cook wore them.—*Detroit Tribune.*

Her Ultimatum.

Haybale—Marthy, I'm makin' a collection up buttons.

Mrs. Haybale—Well, you kin do as you wish, but I hain't goin' to sew no more on.

Blissful Ignorance.

"There goes Bigga now. What makes him put on so much agony? There are others, I guess."

"Yes, but he doesn't know it."

Requires It.

Maud—You seem to eat more since you've come out as a new woman.

Harriet—Well, don't I have to take care of the inner man?

Preacher solemnly.

—There are two things in life for which few people are ever prepared.

Voice in the congregation: "Twins?"

Wire Fencing.

A Putnam County (Ohio) farmer who noticed a complaint that wire fences soon became loose and needed repairs, has written his experience with various patterns. His first experience in the line of wire fencing was with smooth wire, which was fastened to pickets four feet apart. After a time the wire became loose, and more pickets were woven in. The trouble, which at first was slight, rapidly increased. Under the influence of the weather the pickets checked and split where the small staples were driven, and when hogs crowded against the fence, as they always will if there is any sign of weakness, they went through. During the past two years the wire has become loose in such an extent as to make the fence of but little use in turning small stock. Last Spring more was he at a loss what to do. In this dilemma he consulted the advertising columns of *THE AMERICAN FARMER*. Being favorably impressed with the advertisement of the Carter Wire Fence Machine Co., of Mt. Sterling, Ohio, he sent to this firm for a catalogue. After examining the descriptions of the fence, and reading the experience of many farmers who had it in use, he sent for a machine. With this he made a fence which cost him, in addition to his own labor, only about twenty cents per rod, yet which is proof against any kind of stock. Our correspondent says that the fence is all that is claimed for it by its makers. Wire makes the best fence in the world, but a wire fence that is not made in a proper form is just as unsatisfactory as an inferior fence that is made of anything else.

We have now presented some of the objectionable points in a frame hive, but we would not discourage their use, for we would use no other. But to our brother farmers, who are so busy during the Winter, the income is nothing else but what has been earned during the Summer. Why not increase the Winter earnings by building snug poultry-houses, studying up the question of Winter eggs and Winter poultry, and devote your time to gradually building up an industry that each year will ana-

BURPEE'S FARM ANNUAL FOR 1897

Tells the plain truth about hundreds of illustrations, remarkable events, printed in color, and known as "The Leading American Seed Catalogue." *W. Atlee Burpee & Co., Philadelphia, Pa.*

STRAWS.

A curious use for paper is announced in the form of a bathing towel, which consists of a full suit of blotting paper, into which the bather seeps from the water. It dries the entire body in a second.

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Established - - - 1819.

78TH YEAR.

THE AMERICAN FARMER.

"O fortunatus natus eum si bona norit agri-
colae." - VIRG.Published Monthly at Washington, D. C., and
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Greeting: This paper is sent you that you may have an opportunity to see it and examine it, with a view to subscribing. We ask you to compare its contents, objects, and price with those of other papers, and see if you do not come to the conclusion that you ought to have it; that you cannot afford to do without it. We can assure you that if you send in your name for one year that you will find it one of the most profitable investments that you can make. We hope to make and keep it so interesting that you will think that every number more than repays you for the subscription price for a year. Please call your neighbor's attention to the paper.

THE GLEASON HORSE BOOK.

Don't fail to improve the fine opportunity we offer you to get the Gleason Horse Book. This is admitted to be the best horse book ever written, and more than 100,000 copies have been sold at \$3 apiece. We will send it to any address for a club of three subscribers at 25 cents each.

THE Mark Lane Express. which is the highest authority in the world on the grain trade, estimates that Great Britain will require this year about 250,000,000 bushels of wheat, of which she will raise about 56,000,000 bushels, leaving 196,000,000 bushels to be supplied from abroad. Other wheat-importing countries will want enough to make this up to 385,000,000 bushels, and it is not clear where this is to come from. It is not believed that the United States, Canada, Russia, Argentine, and Australia, and other wheat exporters can supply more than 346,000,000 bushels, leaving the world about 50,000,000 bushels short. It confesses that the prospect points to high-priced bread. Let the Europeans buy more of our corn.

Up to the first of this year shipments of apples from Atlantic ports were upwards of 2,175,000 barrels. The bulk of these went to British consumers, only about 3,000 barrels being sent to other countries. These enormous exports have been quite disastrous to British markets. Supplies at ports of entry have been so heavy and prices so low that exporters lost heavily on shipments made late in the year. During the glut American apples sold very low, on Glasgow firm reporting large quantities sold at from one to four shillings, or 25 cents to \$1 per barrel. Considering the quality of the fruit exported these prices are much lower than the market prices on this side of the water.

THERE is a revival of interest in mohair. This is not only in California, Texas and other States, where the raising of goats has become quite an industry, but also in New England and the Interior States. It is expected that 100 fine Angora goats of the very best blood will be imported from South Africa this season and distributed among the goat-raisers.

JUSTICE, BATEMAN & CO. say about justice:

"In our opinion, no schedule could be more scientific in the view of its construction than is Schedule K of the law of '90, which, barring some slight changes, remains to suit changed business conditions, should be re-enacted. Under the two tariff laws of '87 and '90 American flocks increased more rapidly than those of any other nation. If the law of '90 had continued, and the sheep had increased at the same rate for the next 20 years, the wool clip of the United States by this time would have supplied the quantity now consumed here."

The great increase in the importation of American apples into Germany has led the Agrarian newspapers to agitate in favor of the Government taking measures to prohibit further imports, alleging that sources of disease have been discovered in recent imports of the fruit.

A NEW OLEOMARGARINE BILL.

Jan. 14 the House of Representatives passed, by a vote of 126 to 96, a bill introduced by Representative Grout, of New Hampshire, to subject oleomargarine and other counterfeits of dairy products to the laws of the States into which they may be transported. The full text of the bill is as follows:

In favor of a graded land and income tax; to exempt the farmer's tools and \$500 worth of household goods from taxes or seizure for debt; to equalize assessments that farmers will not be unduly taxed; in favor of Woman's Suffrage; against a single gold standard, or retiring the Treasury notes, unless through a reissue in full legal tender form; in favor of a legal width of four inches or more for wagon tires after 1900; for postal savings banks and free rural mail delivery; for law that railway companies must weigh and receipt for car loads of grain, and deliver the same weight; to lower the legal weight of a bushel of ear corn from 70 to 68 pounds; a law to prevent option gambling in grain; for a law against railway companies issuing, or public officials receiving free, passes; for a State law reducing passenger rates from three to two cents per mile; in favor of submitting new laws to a vote of the people.

SHEEP-RAISING ON THE PACIFIC COAST.

The sheep-raisers all over the Pacific Coast feel their hearts rising rapidly since the election. The bugbear of debased money has been emphatically settled. There will be no juggling with the dollar for the benefit of speculators and mine owners, to the great injury of farmers and other producers. Protection will be restored to wool as soon as Congress can reach the matter, and it will make no delay. The production of wool in Australia and South Africa and South America has received a severe check, similar to that which our wheat-growing has sustained, but more lasting.

It is apparent that sheep can be raised over large sections of the Pacific Slope more advantageously than in the competing countries. No more cut-throat legislation need be feared for years to come. Sheep-growing in this country has seen its worst days, and everything looks bright for the future. Those who have been able to tide over the last four disastrous years, and save at least a portion of their flocks, can now confidently hope for a season of substantial prosperity. Sheep will be in demand, and sheep-owners will see the value of their flocks enhance even more rapidly than they depreciated after 1892.

Our urgent advice to sheep-owners everywhere is to hold on to every good sheep they have with a firm grasp. Of course, a poor sheep ought to be gotten rid of as soon as possible, but a flock of fairly good sheep is a better investment than gold-interest bonds.

CAREFUL computation shows that the seeds sent out by the Department of Agriculture during the year 1896 would have planted 21,028 acres of cabbage, 10,768 acres of lettuce, 10,712 acres of tomatoes, and other garden vegetables in proportionately large areas. Briefly, the seed gratuitously sent about the country would have planted more than 115 square miles of garden. In other words, it would have planted a strip of ground one rod in width and 36,817 miles in length. Such a strip would reach one and one-half times around the globe, and a passenger train going at the rate of 60 miles an hour would require 51 days 3 hours and 14 minutes to travel from one end of this gratuitously seeded truck patch to the other. Each Congressional quota contained seed enough to last five years.

Mr. NIKOLA TESLA, the electrical expert and inventor, has recently suggested the possibility of employing electricity as a fertilizing agent for the soil. The currents produced by perfected electrical oscillators, he says, are capable of causing the chemical combination of the nitrogen with the oxygen of the atmosphere. If this combination were carried on upon an industrial scale, which he thinks is possible, then the product could be used as a fertilizer, and in his opinion the benefits to humanity would be incalculable.

THE fact that 146,000 Mexican cattle were imported last year points very strongly to the need of adequate protection. The old rate of duty was \$10 per head, but the Wilson Iniquity substituted a rate of 20 per cent. ad valorem, which came near being no duty, since the value was placed at the lowest figures that the conscience of the importers—and their consciences are very elastic—would permit.

Mr. H. F. STEVENS told the Massachusetts farmers:

The great need of our horticulture in all its departments is brains—for the practical, progressive cultivator of today must be a man of broad education.

He needs to know in a general—yes, in a specific—way the chemical elements of the soil, fertilizers and fruits. He therefore should understand chemistry.

He needs to know the structure of plants, their anatomy and physiological functions, and should be a close student of botany, the science of plant life. He needs to know the habits of those insects which prey on his trees, and how to destroy them; as well should he know those insects that are aiding him in his labors. So he must have a knowledge of entomology.

In short, there is no employment on earth which calls for men with more broadly cultivated minds than the profession of horticulture. In fact, our agriculture will never take the high rank it should until men everywhere recognize it as the most learned of all the learned professions, and that at the vocational upon the success of which depends the whole fabric of human society!

SUGAR BEETS.

Our farmers cannot think too much of the sugar-beet. It has unlimited possibilities for them. Our people are the greatest sugar-eaters in the world, and we buy every year somewhere between \$140,000,000 and \$150,000,000 worth of sugar and molasses. The sugar-beet can be raised whenever wheat is. Our Consul at Havre writes:

The crop pays the farmer better than wheat or any other agricultural product, and hence a large acreage is under beets. In 1894 the area was 1,700,000 acres, and the production nearly 18,500,000 tons, or nearly 11 tons to the acre; 50 to 60 per cent. of all this is used for the production of sugar. The experience of French cultivators is stated to be that the cost of growing an acre of beets is £2, omitting the cost of fertilizing, which it is not always necessary to employ. It is said, too, that the leaves and stalks left on the field will furnish much more manure, after they have been fed to cattle, than the beet requires. The bounty paid on sugar exported from Germany has led to less activity in beet-sugar production in France in the last two years. Nevertheless, the total quantity exported in 1894-95 was 186,287 tons, of which 119,139 tons went to England.

The advantage of beet cultivation is that there is no waste; every part of the vegetable can be used in one way or another. The pulp, after the juice has been expressed for sugar, is largely eaten by cattle, and is found to be very nourishing. The leaves and stalks, when fresh, increase a cow's milk; when dry they afford excellent Winter food. Altogether, the beetroot or the residue after the juice has been expressed, supplies, with the leaves and stalks, nourishment for cattle and sheep more abundant, perhaps, than any other forage that could have been cultivated on the land. It is said that the leaves are frequently used for adulterating tobacco.

The French experience is that all lands suitable for growing wheat will also grow beets; but it is necessary to avoid a soil too compact or containing too much clay. The report enters into some detail in the question of soil, position, manuring (when necessary), modes of cultivation, harvesting and preserving the crop, and a few words are added as to the manufacture of sugar. Something is said, also, as experiments being made in France, under the authority of the Ministry of Commerce, for obtaining illuminating alcohol from the roots.

AN Indiana man writes that he bought five cents' worth of chicory seed, and from it obtained four bushels of roots. He hardly knew what to do with them, but decided to wash them carefully and slice them into thin strips. He then put them into a box used for drying heading timber. In three days they were as dry as powder. He then ran them through a hand bone-mill, which took him about 15 minutes. He had over a bushel of chicory meal. This his wife roasts in the oven the same as green coffee, only it does not take quite so long. She uses it in the proportion of two parts of chicory to one of coffee, and the difference cannot be told. The only objection is the tendency to open the bowel. The main difficulty is in thoroughly drying. His five cents' worth of seed have given him enough chicory to last five years.

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Five O'Clock Tea.
Saunder and insincerity.
Cluttered tongue and spoons.
Gossips and mutual asperity.
Atmosphere—good for swoons.
Move, if the swift dexterity
Knows to the clover be thine.
That's when we see
At a o'clock tea
Served in a social shrine.

This is the Game Society
(Spell with a big, big S)
Plays to display satiety.
Wife's a widow.
Tantalistic indiscretions
Varies the dreamy round,
Therefore you round,
To the round of Home.
Carefully groomed or gowned.

"A wfully glad to see you!"
A wfully good to come!"
The rest, as the damsels they run,
Is lost in the wildering hum.
Nobly comes to free you
Of some wavy and cup,
So you stand and smile,
In a vacan style,
And long to be out and up

Give me an A B C shop,
Lead me to Lockhart's bowers
Take me to the wavy and cup,
Scorched by the social powers,
Rathen, I swear by Aesop,
I'd much a penny bin,
Wavy and cup
Or a wavy and cup.
Where a hard day's work is done.
—London Sketch.

ABOUT WOMEN.

THERE ARE TWO CATHOLIC
sisterhoods for colored women—one
in Baltimore and one in New Orleans.
These sisters conduct schools and take
charge of homes and asylums for the
poor of their own race.

* * *

WOMEN DO NOT FREQUENTLY
patronize the life insurance companies, so it is said, and the reasons generally given are that spinster often have no one for whom it is necessary to provide, and wives refuse to be thrifty for the benefit of a possible second wife.

* * *

THE ROSE IS QUEEN VICTORIA'S favorite flower, Queen Margarita of Italy loves the daisy, the German Empress is supposed to love best the blue corn-flowers of her Germany, and our own first lady prefers the pansy to all other blossoms. The White House conservatories and the gardens all through the Summer are bright with beautiful varieties of this pretty-faced little flower.

* * *

ANNA MILLAR, a young woman, is business manager of the Chicago Orchestral Association—Theodore Thomas's Orchestra. She manages the concert tours, attends to the transportation and hotel expenses, plans programs and tours, sees to the printing and advertising, engages the soloists, and attends to the myriad of details in the great business; and, besides, is said to be most generous and helpful to struggling musicians.

* * *

MEN COMMONLY SAY THAT
women hate women, but when questioned, Elizabeth Cady Stanton, Dr. Hall-Brown, a prominent woman in Brooklyn, and other well-known women denied the accusation against the sex, and quoted Clara Barton, of the Red Cross; Maria Mitchell and Susan B. Anthony as examples of women who love women, and sacrifice their own pleasure and profit to serve their sex. Rose Hawthorne Lathrop, daughter of Nathaniel Hawthorne, is another woman worthy of mention in this connection; but one can't pretend make a complete list of women who have loved women.

* * *

ROSE HAWTHORNE LATHROP,
After a long course of training in the hospitals, has gone into the tenement districts of New York City to nurse and care for women who are suffering from cancer. She works long hours and finds innumerable demands on her sympathies and on her supplies. Croupy children, sick men, starving and freezing women go to her for treatment and help, and she does all that one woman can.

* * *

THE BOSTON LADIES HAVE A
sewing circle which is one of the innermost circles of fashionable society there. Debutantes who have had grandmothers in the sewing circle have an easy time gaining admission, but a new comer must do her prettiest for the favor. The circle really sews. Every member is given a certain street for the year, and if she does not do it, is fined enough to pay for having the work done. The garments made are sent to the missions. After the sewing hour is over there is tea and light refreshments and gossip.

* * *

MRS. ANNIE JENNESS MILLER
says she believes that the housewives of the future will be short enough; "that the woman who goes upstairs, or who goes around with all kinds of household implements, will be able to go naturally." She has invented a house or work-dress. "It does not require a pattern. All you have to do is to make the skirt come half way between the knees and the ankle, and make the waist and skirt all in one piece. Then you can have a little Eton jacket hanging over a chair, and when a caller comes in all you have to do is to slip off your apron and slip on your jacket, and you can entertain your friends in the parlor. That is utility in dress."

THE INTERNATIONAL WOMEN'S Society, of Shanghai, and the Tien Tau Hui, or Natural Feet Society, have been waging a vigorous war in the Chinese Empire against the custom of foot-binding. Long lists of names for a petition were procured, and our United States Minister was asked to present it to the Emperor and Dowager Empress. A Chinese official sent reply that the Imperial Government could not attempt to prohibit the practice of binding the feet of girl children; that it was an ancient and honorable custom. He further said: "The binding of feet is a practice that has been in vogue for a very long time. Those who oppose the binding of their children's feet are not compelled to do so; while, on the other hand, those who wish to carry out the practice cannot be prevented from doing so. Custom has made the practice. Those in high authority cannot but allow the people to do as they are inclined to in the matter of binding the feet of their children; they cannot be restrained by law."

FADS AND FASHIONS.

Geranium red, nasturtium orange, and coral pink are quite the pet colors of the season, particularly for brightening dark frocks.



HER EVENING FROCK.
—Harper's Bazar.

Holly deeply copied is used in Paris for trimming Winter hats and bonnets.

* * *

The new sleeves are really painfully small.

* * *

Inasmuch as the Princess of Wales went to visit the Dutchess of Marlborough arrayed in a velvet cloak, it is of a certainty fashionable apparel, and it behoves every fair matron, who can afford to do so, to have a cloak of fine velvet.

* * *

Black alpaca petticoats lined with flannel are exceedingly comfortable these wintry days.

HERE AND THERE.

To Make Ordinary Cloth Waterproof.

Put half a pound of sugar of lead in a pail of rainwater with half a pound of alum; stir at intervals until the water becomes clear, and then pour it off into another pail. Put the cloth or garments into it and let them stand 24 hours. Then hang the cloth up to dry without wringing. Garments treated thus can be worn in the wildest storm of wind and rain without the wearer getting even damp. The rain will hang in globules on the cloth, which, when waterproof, is better and more healthful than rubber goods.

* * *

To Prevent Linens from Fading.

To prevent buff and gray linens from fading or growing streaky in the process of laundering, add a tablespoonful of black pepper to the first water in which they are washed. To keep pinks and blues from growing dingy, add a tablespoonful of salt to the first washing water.



THE NEW SLEEVES.
—Harper's Bazar.

The railing of banisters requires frequent attention. This rail should first be wiped off with a cloth wrung from a lukewarm soap and wiped dry. Mix two parts of linseed oil with one part of turpentine; apply this to the railing by putting a little on a flannel and rubbing the wood; then polish it with a fresh flannel.

WOMAN'S WISDOM.

When Samuel Went for the Sorghum.
"Twas on a fine October day,
When nature all seemed glad and gay,
The trees all dressed in bright array.
When Samuel went for sorghum;
His Milburn wagon new and clean.
(A fine one is seldom seen);
All painted up with red and green,
To get the sorghum.

The frosty air was keen and chill,
All around seemed calm and still,
When Samuel went to Spencer's Mill.
To load in the sorghum wagon.
Placed some in crooks about his feet,
It surely would be hard to beat
Such a fine lot of sorghum.

When going home, man close of day,
One great three-gallon crock gave way,
The golden sirup had full play.
And! O! such sticky sorghum.
John Gilpin's ride of long ago,
Th' he rode fast and Samuel slow,
Could not have been so sad, we know,
As this one with the sorghum.

On reaching home he looked around,
Expecting his good wife would frown;
She said: "The sweetest man in town
Is Samuel with the sorghum.
His boots beside the kitchen door
Caught all the flies by the score,
And 'stick 'em tight' we want no more,
Since we have got the sorghum.

The wagon was a sorry sight,
Yet everything was made all right,
And now we think we'll say good-night,
To Samuel and the sorghum.
And yet a postscript we add:
When buckwheat can be had,
To welcome you we will be glad,
To pancakes—and to sorghum.

N. C. J., Batavia, Mich.

SALT LAKE CITY.

EDITOR FARMHOUSE: Having about four years ago spent a few months in Salt Lake City, I will give the readers of the Farmhouse Department a few of my recollections. Salt Lake City is a beautiful city, situated in the Valley of the Jordan, at the foot of the Wasatch Mountains, about 20 miles from the Great Salt Lake.

Of course, in visiting the city one's interest is chiefly centered in the Mormons, or Latter Day Saints, as they choose to style themselves, their manners, customs, buildings, etc. Among beautiful mansions, new and old, rise embowered, vine-covered cottages. A few of the first buildings still remain, notably the first house erected for Brigham Young, a little, old, tumbled-down building—one could almost stand on the ground and reach the top. Then the office of the Woman's Exponent, Mrs. Emilene Wells, Editor. This building has been visited by most all the noted men and women of Europe and America that have been in the city—Counts, Earls, eminent Divines of both continents; the Lion and Beehive houses, both residences of Brigham Young, and later Amelia Palace, now used as a Keeley Institute; Eagle Gate, erected by Young in 1859.

Temple Block is surrounded by a sandstone-and-granite wall about 10 or 15 feet high, inclosing the Temple, Tabernacle, and Assembly Hall. The first Sunday spent in the city one always goes to the Tabernacle, a domelike building; has one of the largest church organs in the world, and a choir of 500 voices. The Temple is 223 feet high in its highest spiral, and is built entirely of granite brought down from the mountains. On the capstone is placed a figure of the Angel Moroni, and is made of hammered copper and covered with goldleaf, and represents a man in the act of blowing a bugle. The foundation of the Temple was laid in 1853, and, like Solomon's Temple, was 40 years in building.

Hard-boiled eggs well chopped and seasoned with melted butter, salt, and pepper, make a good filling for sandwiches.

Baked onions are first boiled, then seasoned with drawn butter, salt, pepper and bread-crumb, and baked in a dish set in a pan of water. A little cream or milk added to them makes the flavoring more delicate.

* * *

Eggs poached in cream or milk are fit to set before a king for his royal breakfast. Use a pint of cream or rich milk for eight eggs. Flavor with butter, salt, pepper, and a bit of nutmeg, if you like nutmeg. When the cream boils drop the eggs in and poach them to the desired degree of consistency, and dip a bit of the cream up to pour over the top of the eggs. Serve them on prettily-brown slices of toast, and pour the cream over them.

* * *

APPLE CUSTARD PIE.

Stew quartered apples in a very little water until they are tender; then rub them through a colander. For one pie allow one pint of cooked apples. While they are still hot stir into them a spoonful of butter, one cup of sugar, two well-beaten eggs, and half a cup of cream. Line a deep pie plate with rich crust rolled thin, and fill the plate with the prepared mixture. Bake in a quick oven. Beat the whites of two eggs very light, and after the pie is baked spread them over the top lightly, and brown in the oven.

* * *

This group of recipes is taken from the *American Kitchen Magazine*:

POTATO TIMBALES.

Add one beaten egg to each cupful of hot seasoned mashed potato. Butter small molds with cold butter, sprinkle on many fine bread crumbs as will adhere, fill with the mashed potato, place the molds in a pan of hot water, and bake 15 minutes. Turn out and serve as a garnish for a dish of meat.

MOLASSES COOKIES.

One cup molasses, one-half cup brown sugar, one teaspoonful soda, one egg, one-half cup hot water, one-half cup shortening, one teaspoonful each ginger and salt, five cups of flour, or enough to drop from the spoon into soft cakes.

* * *

SOFT MOLASSES COOKIES.

Two cups molasses, one-half cup brown sugar, one teaspoonful soda, one egg, one-half cup hot water, one-half cup shortening, one teaspoonful each ginger and salt, five cups of flour, or enough to drop from the spoon into soft cakes.

* * *

COCOANUT PUDDING.

One heaped cup cocoanut cakes broken in small pieces. Soak them half an hour in one pint milk. Beat yolks of two eggs and two tablespoonsfuls of sugar, one-half teaspoonful of salt. Stir into milk and bake about 20 minutes.

* * *

ENTERTAINED A PRINCE UNAWARES.

Prince Christian of Denmark, had he only been a King instead of a Prince, would certainly outwit the story of Alfred the old and the cakes. The other day he had to review some troops at Bierie, a country town of small dimensions. Riding home, tired and thirsty, he stopped at a farmhouse to beg a drink. The old farmer's wife had him welcome and enter. As she was at that moment pancake-making, she asked him if he would like some. "Very much, indeed," replied the Prince, and soon he was comfortably seated, enjoying his humble fare at the kitchen table.

* * *

ANOTHER CURIOUS CUSTOM IS BAPTIZING

FOR THE DEAD. One old Norwegian lady told me she had been baptized 16 times, the last time for her mother. "And" she said, "when I came up out of the water it appeared as though my mother took hold of me around the waist and tried to hold me down." I thought it a good thing she did not try it again for some dead-and-gone relatives.

—TEXIE, Almena, Kan.

* * *

THE RAILING OF BANISTERS REQUIRES FREQUENT ATTENTION. This rail should first be wiped off with a cloth wrung from a lukewarm soap and wiped dry. Mix two parts of linseed oil with one part of turpentine; apply this to the railing by putting a little on a flannel and rubbing the wood; then polish it with a fresh flannel.

HOME TABLE.

"Men marry butterflies and are disappointed when they cannot cook." —Harriet Beecher Stowe.

Here is a stray recipe for fig pudding. It may or may not be good, but it's worth trying:

FIG PUDDING.

Chop half a pound of figs and mix with a teacup of grated breadcrumbs, a teacupful of sugar, two tablespoonfuls of melted butter, four beaten eggs and five ounces of candied orange and lemon peel; turn into a greased mold; steam two hours and a half. Serve with pudding sauce.

* * *

A bit of sausage added to Mr. Turkey's stuffing gives a good flavor.

* * *

son, and soldiers are always 'hard up'; I never take anything from them." He suggested he was not quite so "hard up" as the generality of them. "Oh! I know better," and with a knowing wink and a nod she turned to her pancake-making. "It is quite true, good mother," said the Prince, laughing heartily, "for you see my grandfather happens to be the King." "What!" cried his astonished hostess, dropping her whisk and nearly upsetting the frying pan in her fright. A second or two she gazed at him speechlessly, then remarked naïvely: "I should have asked you into the parlor, shouldn't I?" —New York Tribune.

ONE BLANKET A YEAR.

The Beautiful and Patient Weaving of the Navajo Indians.

Exactly the most perfect blanket.

Neither Ottoman fingers nor British

machines have ever produced its peer.

The only thing I know of to surpass it

is to be found among the astounding

prehistoric fabrics we have examined in

the mummy mines of Peru, but they are

not blankets. And this matchless weaving

is the handiwork, not of a trained heir

of the "Great American Desert."

The Navajo Indian of New Mexico

and Arizona cannot vie with the modern

Turk in rags, nor with the extinct Yunca

in fringes, but when it comes to blankets

they can beat the world. Or, rather, he

could—for it is nearly a generation since



All Hardacre was agog with the rumor that there was to be a change in the post-office. Miss Sophronia Wigly—commonly called "Miss Phrony"—had been the postmistress for six years. In fact, she had the entire charge of affairs for twice that length of time; for though during the first six years her father, Simpson Wigly, had been nominally at the head, it was well known that Miss Phrony attended to all the business.

Her conception of the duties of a postmistress, it is true, was entirely original, but she was always allowed to go her own way, and when her father died she kept on signing her reports, "S. Wigley," the same as she had been in the habit of signing them during his lifetime, and no one seemed to consider it in any way an irregular proceeding. Perhaps if the salary had been large enough to make any one covet it, a change might have been suggested, but it was a mere pitance. Besides, as a community, they were not fond of making changes. They were used to Miss Phrony's ways, and though she sometimes kept them in suspense a full quarter of an hour before she could tell definitely whether there was any mail for them or not, a little mild bantering was the extent of their fault-finding.

But at last, for reasons that were given to the public, the Postmaster-General had politely requested Miss Phrony to retire, informing her at the same time that she was to be succeeded by Mr. Richard Culver. Richard Culver was a one-armed soldier. Happily it was not his right arm that had been so brutally amputated on that Southern battlefield three years before, or he might not have been considered eligible for the office. But an arm is an arm, be it the right or the left, and Richard had at first found it a hard matter to make one do the work of two, especially when it came to tying his cravat. But he was not given to whining over his misfortunes; even when he learned, on coming home from the war, that the bulk of his property had been swept away during his absence, nobody heard him grumble. He had passed through trials so much greater than this seemed small in comparison.

He was not a Hardacre man. If you were acquainted with him, or had ever lived in Hardacre, there would be no need of telling you that; for the Hardacre people, though they had the kindest of hearts, were mostly "well-to-do" fisher-folk, content to vegetate in the weather-worn houses where their forebears had lived and died, with no hankering for an education that went beyond that afforded by the "district" school, and caring no more for the way the world wagged than if they had lived in Kamtchatka. But Richard Culver was a college-bred man, and would probably never have thought of burying himself in Hardacre had it not been for the timely offer made by his cousin, Jerry Rogers. Jerry, who kept the village store, was beginning to feel his years, and knowing that Richard had "a good head for figuring," he begged him to join him in business. Richard was there on a sad errand. He had seen his cousin's only son, Seth Rogers, shot through the heart at Gettysburg, and being one who did not mind putting himself to a little trouble to do a kindness, he had come down the island to bring to the father and mother the dead soldier's personal belongings. The father said that he had always wanted to take Seth into the store, but until the war came the boy had thought of nothing but going to sea. And now, having no other son, he wanted to adopt Richard.

Richard raised objections at first—a one-armed man in a country store would not be able to do enough real work to earn his salt; but Jerry said that the most his son had to do was to keep the books. He had been trusting Tom, Dick and Harry, until his accounts had got into such a snarl that he couldn't tell head or tail to 'em, and if he couldn't get somebody to straighten 'em out he'd have to shut up shop.

There was nothing very tempting in the offer. The place was small, and the people had little money to spend; but Richard, feeling that it was better to live on bread and fish in Hardacre than to be dependent on friends in the city, promptly hung his hat on the peg behind the store door and set himself to his task. It was not the first time that he had undertaken to clean up his cousin's accounts. The year before the war he had spent his Summer vacation in Hardacre, and, finding that Jerry, who until then had been a stranger to him, was at his wit's end in trying to make out his own handwriting, he had devoted more than one rainy morning to deciphering the hieroglyphics, and many of the names in the ledger, as well as the items set against them, were grotesquely familiar to him:

"Peter Ridder—half pd coffee 15 cts.
John Lopez—1 lb. sugar 10 cts.
Jacob Post—1 box matches 2 cts.
Sary Ann Purvins—1 box ink 10 cts."

They were a frugal people, these Hardacre farmers and fishermen, their frugality being an "inherited instinct" for which they were indebted to their frugal New England ancestors. They made their purchases fit the need of the hour, and rarely parted with a penny in

we don't realize that there's any world outside of Hardacre, an' I don't believe there's one of us could tell the names of a dozen postoffices off the island if our lives depended on it. For a postmaster Uncle Sam wants somebody who knows how to do something besides sort over the letters an' we can thank our stars that Richard's willin' to take the place."

It was Jerry who, in answer to a letter inquiring for a suitable person to succeed Miss Wigly, had recommended Richard. Richard, he knew, was quite competent to fill the place, and it would be an advantage to the store to have the office under the same roof.

Miss Phrony, during her protracted reign, had carried on the business in her own house, in a "lean-to" facing the street, and when it came to moving the desk and such other furniture as belonged to the Government, she watched proceedings, with so tragic a protest in her tired eyes that it made Richard desperately uncomfortable; he felt as if he had become an accomplice in the robbing of a bird's nest. Jerry had no such compunctions.

"Might as well make a bonfire of this," he said, rolling out a barrel that seemed to be filled with waste paper. But Richard thought it would be wiser to examine the contents before destroying them; and Jerry, who always fell in with whatever Richard suggested, trundled the barrel across the street to the door of a bird's nest. Jerry had no such compunctions.

"I shall overtake you in the course of the day," he said, confidently. But it was late in the Autumn before they saw him again; and the length of time that it had taken the Hardacre blacksmith to repair his axletree was considered such a joke that he did not hear the last of it until the war took him beyond reach of their gibes.

Ab, but they could never know what a happy accident it had proved.

He had not yet ceased to give thanks for it, as having brought into his life the first

touch of brightness from a woman's hand that he had known since his mother's death, away back in his boyhood.

It chanced that on the very day of the accident Milicent and her aunt had taken

rooms in the neighborhood. The aunt was something of an invalid, having overtaxed herself in the trainload of social duties, and a carriage trip had been

recommended in the hope of her finding it a cure for insomnia. They had not planned to make Hardacre their stopping-place, but the little cluster of quaint old houses, the wide, cool street, the entrancing glimpses one caught of the sea between the barricades of sand dunes, and, above all, its remoteness from the "madding crowd," so impressed the tired rest seeker that she at once made inquiries for lodgings.

"Now that's sompin' like," said Pardon. "This keepin' 'em in a pile on the desk an' havin' to shuffle over the hub-batch from A to Izzard to find the one that's called for ain't no way to do business, an' I've told Phrony Wigly so time an' again."

"It's the best we can do, since the people can't afford to pay for boxes," said Richard. And then the village folk began to drop in to ask for letters, and every one had some characteristic comment to make. But a storm was under way, and none of them stayed to gossip. Richard was not sorry to have them go; he had not yet finished his task, and as soon as he was alone he seated himself at the office desk. The Sunnner people had not yet learned the road to Hardacre, and the village had neither an inn nor a boarding-house. But when the invalid discovered Mrs. Obadiah Martin's pretty cottage she told Milicent that they would go no farther. And having a persuasive voice and a well-filled purse, it did not take her long to convince Mrs. Martin that she would find it to her advantage to let them become her guests. It was scarcely an hour later that Richard, strolling about to pass the time while waiting for his carriage, met Milicent on the beach. Being a young woman of resources, in spite of the soft Evangeline eyes, she had set to work, with the maid's help, to construct an awning for the invalid, and was just then exerting all her strength to break off a stubborn cedar limb.

"Allow me," cried Richard, doffing his hat, as he took out his jack-knife.

Richard remarked to himself, as he pushed back a sheet of paper, on which he had been making out the day's memoranda, and lifted the lid. When the lid was let down again, the paper had disappeared, and thinking that it must have slid through the crevice at the back of the desk, he moved the desk from the wall far enough to take a look behind it. But the paper was nowhere to be seen, and after a little investigation he discovered that the desk had a double back, the one on the outside, made of rough pine boards, having been added as a supplement to the inner one, which was scarcely thicker than a lath, and that between the two the shrinking of the wood had left a space fully half an inch wide. The paper that had slipped into this chasm was the one that he wanted for reference, and with the help of a hammer he proceeded to make an opening. But his sheet of foolscap was not the only thing that had found its way to this unsuspected hiding-place; as he pulled off the board a dozen or more letters tumbled out. Some of them were yellow with age; others, he saw by the date of the post-mark, had been there but a few weeks, and some bore no post-mark, having never been mailed. Richard, as he gathered them up, no longer had any qualms for having dispossessed Miss Phrony.

"Poor soul!" he mused. "It must have puzzled her to know where the letters went. Hello! What's this?"

"Mrs. Samuel Harker!" From the Pension Office, too! That's worth finding, at all events. Perhaps Susan will be able to have something besides turkey for her Christmas dinner."

"Yes, I s'pose she is, but she ain't got it. She wrote time an' agin to a pension lawyer in the city, but nothing come of it, an' that was two years or more ago.

She needs it bad enough, the Lord knows, for she's got two youngsters dependin' on her. Wife's goin' to send

over a turkey to help her out for Christmas."

The thought of turkey reminded him that he had eaten no supper. There

were plenty of eggs and butter in the store, and having whipped up an omelet, after a recipe that he had learned in his college days, and set a cup of tea to drawing, he spread a sheet of wrapping-paper on a barrel that chance had standing near, and after adding some crackers and cheese and a few dainty shavings of smoked beef, seated himself on a nail-keg, and fell to with a hearty relish.

He could remember eating many a

worse meal in camp and mess-room; yet,

as he recalled his old home in the days before the war and took in his present surroundings—this typical country grocery, with its odors of salt fish and stale tobacco smoke, in place of the spacious dining-room, redolent with fragrances of fresh flowers, and the barrel-head instead of the ample table with its sparkle of glass and silver—he smiled grimly at the contrast. What would his old friends say, he wondered, if they could look in upon him? And Milicent! How often she had laughed

at him for his superdaintiness during those merry weeks when they had been fellow-boarders at Mrs. Martin's. And forgetting his unfinished omelet, he drew out the picture of Evangeline and lost himself in a reverie. How long ago it seemed, that fatal day when, rounding a sand hill, he found himself face to face with Milicent Bowe! He had come down the island in his carriage, in company with a coaching party; and that morning, just after starting on the return trip, he and his driver, owing to the breaking of an axle, had been detained at Hardacre, the nearest point where a blacksmith could be found. It was not likely to be a long detention, and the others, including the friend that had shared his carriage, drove on.

A mouse stealing along the edge of his improvised table served finally to remind him that it was growing late, and rousing himself, he cleared away the remains of his supper. The barrel that he had utilized chanced to be the one that had been brought from Miss Phrony's office, and as he started to roll it aside, the head came off, revealing a mass of old newspapers and pamphlets.

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Superior.

Snyder—I would rather have von glass of German beer as tree glasses of American.

Mike Casey—Now how is that?

Snyder—De German glasses vos four times as pig.

More Poetical Than Useful.

“I woke up in the night, but couldn’t tell the time; my watch had stopped.”

“What kind of a watch is it?”

“One of those silent midnight watches.”

A New Year’s Celebration.



—Texas Siftings.

The Best.

The best make-up for an actor is a make-up with his manager.

A Probable Result of Daily Libels. First Antiquarian—I think that before the land from the Atlantic to the Pacific was called Chicago, or about 2000, the ancient race inhabiting this country had the most ugly women that ever existed.

Second Antiquarian—Why?

“I’ve looked over the cuts in their newspapers covering a period of 400 years.”

Paid the Penalty.

First Manager—I see that Curtin, the actor, is gone.

Second Manager—Yes, frozen to death.

“How did it happen?”

“He tried to produce a Chicago success in New York.”

At the Museum.

Craggs—I’ve heard a lot of scandal to-day.

Lage—What was that?

“Why, that the man from Borneo was a little wild in his youth.”

Overdid Himself.

Wright—Why doesn’t Jefford patronize Flashlight, the photographer, any more?

Harmon—He promised to give him a speaking likeness of his wife.

Friend—Is your new play doing well?

Manager—The house is crowded every night like an elevated train.

Popular Plays.



—Texas Siftings.

Miss Millions—Will you ever love another?

Charley Needmore—Well, it was such hard work getting to love you that I don’t believe I will.

Might Have Known.

Careless Harry—What did yer see in yer trip around de world?

Siesta Sam—Well, I seed wild animals, an’ crowded heads, an’ factories workin’ an’ de rest.

Careless Harry—Wat did yer like best?

Siesta Sam—De rest, of course.

THE DAIRY.

MAKING WINTER MILK.

Points on Concentrated Feed and Food Rations for Milk Cattle.

In his valuable paper at the Maine Dairy Conference, on Economic Winter Feeds for Milk Cows, Prof. J. B. Lindsey, of the Hatch Experiment Station, Massachusetts, explained the composition and digestibility of feed-stuffs and the ways in which the different groups of food constituents are utilized in the process of nutrition.

The actual digestible nutrients needed by the dairy cow are as follows: Protein, 25%; fat, 5%, and carbohydrates, 13 pounds; making a total of 16 pounds.

They enable the animal to sustain a good physical condition and to produce a maximum and continued yield of milk. The several feeds given her should be classified, and as a result we have the coarse feed and concentrated feed.

COARSE FEED.

Upon farms having soil naturally adapted to grass, the farmer naturally raises large quantities of hay and depends upon this to a considerable extent as a source of coarse feed. Very unfortunately there are few farms where land is favorable to production of large quantities of hay, because of the lack of moisture. Upon such land should be grown Indian corn, because the corn plant extends over a longer period of growth and will withstand drouths better than grass. Upon soils naturally dry, one can secure a great deal more food from the corn crop than when the same land is devoted to the production of hay. The silo is the most economical way in which to preserve the corn crop. It might be advisable in some cases to cure a portion of the corn crop, because ensilage cannot be used as the entire source of roughage.

MEDIUM GREEN SOJA BEAN.

In addition to corn fodder as a source of ensilage, the speaker recommended the medium green soja bean. This article is imported from Japan and is sown in drills two and one-half feet apart. It can be cut and put into the silo at the same time with the corn. It serves to increase the protein content of the silage and also to neutralize a large portion of the acid.

VARIETY OF FOOD.

Roots are valuable as a source of milk production, but are too expensive for such a purpose.

The concentrated feeds were classified and their comparative values for milk production were explained in detail. To produce the well-balanced dairy ration, it is necessary, for obtaining the best results, to combine the coarse and concentrated feeds.

For practical purposes it is not possible to weigh out the coarse feed, and a great deal will have to be left to the judgment of the feeder.

HAY AND ROOTS.

If hay alone is fed, give all the animal will eat up clean twice a day. It is hardly economical to feed over 15 pounds of roots daily. From 30 to 35 pounds daily is sufficient. More than this will disturb the digestion of some animals, and also cause many cows to lose flesh. Nine to 12 pounds of hay or other coarse feed of a similar nature, together with 30 to 35 pounds of ensilage, make sufficient coarse feed for an animal’s daily needs.

WEIGH THE GRAIN.

While the coarse feeds can be fed according to the feeder’s judgment, it becomes necessary, both for the sake of economy and health, to carefully weigh the grain ration. The coarse feed will furnish from 100 to 150 pounds of digestible protein, and we add the concentrated feeds primarily to secure the extra 100 to 150 pounds of protein necessary to balance the ration.

THREE GRAIN RATIONS.

The following grain mixtures will do this, and are intended to be fed in connection with coarse feeds:

1. Fifty pounds cotton, linseed or gluten meal; 100 pounds gluten feed; 100 pounds corn meal, mixed, and from five to seven quarts fed daily.

2. Fifty pounds cotton, linseed or gluten meal; 100 pounds gluten feed; 100 pounds wheat bran, mixed, and from seven to nine quarts fed daily.

3. One hundred pounds cotton seed or gluten meal; 100 pounds wheat bran, mixed, and seven to nine quarts fed daily.

As a single grain feed, six to eight quarts per day of Buffalo gluten feed can be fed with safety, and will produce satisfactory results.

Made Him a Skeptic.

She—Do you believe in ghosts, Mr. Carr?

Mr. Carr—Well, no. Since I was robbed of my watch by one in Philadelphia a few years ago I’ve kind of lost faith in them.

Friend—What was that?

“Why, that the man from Borneo was a little wild in his youth.”

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For practical purposes it is not possible to weigh out the coarse feed, and a great deal will have to be left to the judgment of the feeder.

HAY AND ROOTS.

If hay alone is fed, give all the animal will eat up clean twice a day. It is hardly economical to feed over 15 pounds of roots daily. From 30 to 35 pounds daily is sufficient. More than this will disturb the digestion of some animals, and also cause many cows to lose flesh. Nine to 12 pounds of hay or other coarse feed of a similar nature, together with 30 to 35 pounds of ensilage, make sufficient coarse feed for an animal’s daily needs.

WEIGH THE GRAIN.

While the coarse feeds can be fed according to the feeder’s judgment, it becomes necessary, both for the sake of economy and health, to carefully weigh the grain ration. The coarse feed will furnish from 100 to 150 pounds of digestible protein, and we add the concentrated feeds primarily to secure the extra 100 to 150 pounds of protein necessary to balance the ration.

THREE GRAIN RATIONS.

The following grain mixtures will do this, and are intended to be fed in connection with coarse feeds:

1. Fifty pounds cotton, linseed or gluten meal; 100 pounds gluten feed; 100 pounds corn meal, mixed, and from five to seven quarts fed daily.

2. Fifty pounds cotton, linseed or gluten meal; 100 pounds gluten feed; 100 pounds wheat bran, mixed, and from seven to nine quarts fed daily.

3. One hundred pounds cotton seed or gluten meal; 100 pounds wheat bran, mixed, and seven to nine quarts fed daily.

As a single grain feed, six to eight quarts per day of Buffalo gluten feed can be fed with safety, and will produce satisfactory results.

Made Him a Skeptic.

She—Do you believe in ghosts, Mr. Carr?

Mr. Carr—Well, no. Since I was robbed of my watch by one in Philadelphia a few years ago I’ve kind of lost faith in them.

Friend—What was that?

“Why, that the man from Borneo was a little wild in his youth.”

Overdid Himself.

Wright—Why doesn’t Jefford patronize Flashlight, the photographer, any more?

Harmon—He promised to give him a speaking likeness of his wife.

Friend—Is your new play doing well?

Manager—The house is crowded every night like an elevated train.

Popular Plays.

—Texas Siftings.

Miss Millions—Will you ever love another?

Charley Needmore—Well, it was such hard work getting to love you that I don’t believe I will.

Might Have Known.

Careless Harry—What did yer see in yer trip around de world?

Siesta Sam—Well, I seed wild animals, an’ crowded heads, an’ factories workin’ an’ de rest.

Careless Harry—Wat did yer like best?

Siesta Sam—De rest, of course.

THE ORCHARD.

Cullings.

On Puget Sound and in eastern Washington prune, peach and apple trees have been destroyed by thousands by early cold weather. It is estimated that 500,000 trees have been killed.

In the orchard of Samuel Reynolds, of Lawrence, Kan., is a Vandiver Pippin apple tree, 40 years old, which measures 12 feet in the circumference of the trunk. The boughs spread over a circle having a diameter of 100 feet.

PERSIMMONS.

The Indiana Station Believes Them a Valuable Fruit.

The Indiana Experiment Station believes that the American persimmon can be made a very valuable fruit, and has recently issued a bulletin giving the results of experiments, and other knowledge obtained up to date.

It is believed that more attention should be paid to the persimmon, and that in consequence of efforts to improve the fruit instead of the neglect it now receives this species may be developed into a valuable horticultural product. The species grows wild in most of the Southern States, but will ripen fruit as far North as the Great Lakes, and seems especially adapted to the soil and climate of the southern half of Indiana. The trees vary in height from 20 to 80 feet, according to the land on which they grow.

The flowers are dioecious, both the staminate and pistillate being borne on the same tree, although some trees produce only staminate blossoms. The flowers are rich in nectar. The fruit is subglobose, from one-half to two inches in diameter, and borne on a very short fruit-stalk. The number of seeds in the fruit varies from two to several, although some varieties are practically seedless. All persimmons possess a peculiar astrigency when green, which is lost upon the fruit becoming ripe, from August to December, the time varying with the variety.

The propagation may be from the seeds or by means of budding or grafting, which should be done in the Spring. The stocks for grafting should be at least two years old. The top working of old trees has been successfully performed, and is believed to be desirable in many cases.

The transplanting of persimmons is difficult on account of the long taproot; hence it is safest to transplant trees only one to two years old. The transplanting is best done in the Autumn.

Persimmons grow on almost any kind of soil, from a rich bottom land to the poor thin soil of hilltops; but a warm, rich soil, with sunny exposure, is best adapted. They give best results under judicious cultivation and pruning.

The varieties Shoto, Early Bearing, Golden Gem, Daniel Boone, Hicks, Kansas, Smeeth